Supplemental Information for

SUSTAINED PROGRESS IN ADDRESSING MANAGEMENT ISSUES

(This document provides additional information for Section I – Overview and Analysis of EPA's FY 2004 Annual Report)

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SUSTAINED PROGRESS IN ADDRESSING MANAGEMENT ISSUES

The Reports Consolidation Act of 2000[1] gives agencies the authority to consolidate various required management reports and submit them as part of their annual reports. This section discusses EPA's progress in strengthening management practices to achieve program results. It includes the FY 2004 Integrity Act Report, which highlights the strategies implemented and progress made in addressing management concerns identified under the Federal Managers Financial Integrity Act (FMFIA);[2] Management's Report on Audits, which summarizes the Agency's efforts to carry out corrective actions on audits issued by EPA's Office of Inspector General (OIG); and a summary the OIG's list of top management challenges facing the Agency along with a brief update on the Agency's progress to address each issue.

Fiscal Year 2004
Annual Assurance Statement

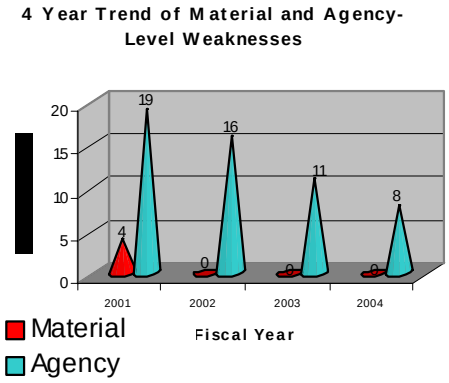
I am pleased to give an unqualified statement of assurance that the Agency's programs and resources are protected from fraud, waste, and mismanagement, based on EPA's annual self-assessment of its internal management and financial control systems.

Michael O. Leavitt
Administrator

November 2, 2004
Date

FY 2004 Integrity Act Report

In FY 2004, for the third year, EPA has no material weaknesses to report under FMFIA. During the year, the Agency resolved three of its less severe, internal Agency weaknesses, which are reportable conditions that merit the attention of the Administrator (see chart). To identify management issues and monitor progress in addressing them, Agency senior leaders use a system of internal and independent reviews and program evaluations, audits by the Government Accountability Office (GAO) and EPA's OIG, and performance measurement. These efforts help ensure that program activities are effectively carried out in accordance with applicable laws and sound management policy, and provide reasonable assurance that Agency resources are protected against fraud, waste, abuse, and mismanagement.



The Office of Management and Budget (OMB) continues to recognize EPA's efforts to maintain effective and efficient management controls. Since June 2003, the Agency has maintained its "green" status score for Improved Financial Performance under the President's Management Agenda (PMA). EPA's senior managers meet periodically during the course of the year to provide updates on the progress the Agency is making to resolve its current management challenges and to identify and discuss emerging management issues so that new issues can be addressed before they become serious problems.

In FY 2004, EPA made progress in addressing a wide range of major management challenges, thereby strengthening its ability to achieve environmental and human health results. The Agency's advancements in establishing and implementing effective management controls in environmental programs include:

- Using a comprehensive, integrated strategy to address risk from all sources of air toxics—major, area, and mobile. In FY 2004, EPA completed all of its 10-year Maximum Achievable Control Technology standards. This effort has already resulted in annual reductions of 1.5 million tons of toxic air emissions and is expected to achieve even grater reductions when all sources come into full compliance by 2007. Other aspects of the strategy include a focus on air toxics reductions in communities and working on mobile source regulations through reformulated gasoline, engine standards, and other efforts, as well as a voluntary diesel retrofit program.

- Addressing Laboratory Quality System Practices through EPA's Forum on Environmental Measurement of the Science Policy Council, which developed a policy directive ensuring and documenting the competency of Agency laboratories. Under the policy, EPA laboratories demonstrate on-going performance through independent external assessments, accreditation or certification, and inter-laboratory comparison studies of their operations.

- Improving water quality by reducing the backlog of National Pollutant Discharge Elimination System (NPDES) Permits[3] and setting priorities for water permitting to achieve environmental results. In collaboration with states and regions, EPA continues to implement the Permitting for Environmental Results[4] strategy to assess and identify opportunities for enhancing the integrity and efficiency of the NPDES program.

- Redesigning and modernizing EPA's Permit Compliance System to address recently expanded requirements of the NPDES permitting program and provide better information for the Agency's compliance and enforcement programs (e.g., tracking pollutant loadings, capturing information on storm water sources, and assessing the health of individual watersheds).

The Agency also addressed a number of challenges in administrative and management areas, which provide the infrastructure supporting EPA's ability to achieve results. Following are examples of FY 2004 accomplishments toward continued improvement in effective management of resources:

- Implementing a comprehensive approach to managing its grants awards, which make up more than half of the Agency's budget.[5] Having issued policies to address competition and post-award monitoring, EPA implemented its Grants Management Training Plan to enhance the skills of personnel involved in grants management. EPA is also focusing efforts on improving grant recipients' understanding of federal grant requirements. In addition, EPA is the first agency to successfully enhance and deploy the Integrated Grants Management System, which improves efficiency by fully automating the grant processes in regional offices.

- Strengthening management controls to ensure that the Information Security Program collects data of sufficient quality for decision makers. Advancements include improved technology and hardware, along with new testing and evaluation processes and greater investments in Information Security training.

- Making significant progress in the area of human capital. In FY 2004, EPA achieved "green" progress and "yellow" status scores for successfully implementing the human capital portion of the PMA.[6] In addition, the Agency began documenting the relationship between every employee's work and the Agency's strategic goals to fulfill Agency commitments to the Office of Personnel Management and OMB. EPA has taken crucial steps in the areas of workforce planning and staff development, with particular emphasis on management development.

EPA is currently addressing six of its management challenges as internal weaknesses for which the Agency develops specific and measurable corrective actions and reports on progress to the Administrator. Following are brief descriptions and summaries of efforts underway to address the management challenges facing the Agency.

1. **Linking Mission and Management**

Scope of Challenge: *OIG believes that while EPA has begun linking costs to goals, it must continue to work with its partners to develop appropriate outcome measures and accounting systems that track environmental and human health results across the Agency's new goal structure. This information must then become an integral part of the Agency's decision-making process.*

Agency Position: EPA does not believe there is a disconnect between its program goals, performance objectives and measures of effectiveness. OIG noted that EPA's reliance on output measures makes it difficult to provide regions and states the flexibility they need to direct resources to their highest priority activities and assess the impact of the Agency's work on human health and the environment. EPA continues to make progress in linking assessments of program performance with resource decisions; developing outcome-oriented goals and measures; and providing managers with timely, reliable, and consistent cost information.

EPA has been recognized across government for its efforts to improve the way the Agency manages for results and uses cost performance information in decision making. In 2003, the Agency received the President's Quality Award for significant accomplishments in financial performance. Since June 2003, the Agency has maintained a "green" status score for Improved Financial Performance. In addition, since June 2002 EPA has earned a "green" progress score for Budget and Performance Integration under the PMA for all but one consecutive quarter.[7]

EPA's FY 2004 accomplishments include (1) developing a comprehensive Agency-wide performance measurement development improvement strategy that promotes improved measures through measure development plans and consideration of environmental indicators; (2) developing more outcome-oriented annual performance goals and measures and efficiency measures; (3) implementing a new financial architecture that provides greater program and project detail in the Agency's accounting system while tracking resources across the five goals of

EPA's Strategic Plan; and (4) launching ORBIT, a reporting tool that makes financial and resource information readily accessible to Agency managers.

Highlights of progress:

- Developed Regional Plans that link EPA's regional environmental priorities to the Agency's five strategic goals.[8]
- Increased the percentage of annual goals classified as outcomes from 44 percent of the total in FY 2004 to 62 percent for FY 2005.
- Increased the percentage of performance measures classified as outcomes from 51 percent in FY 2004 to 64 percent for FY 2005.
- Completed PART assessments for 32 programs covering over 60 percent of the Agency's budget. OMB approved efficiency measures for 22 of the 32 programs assessed with the PART.
- Launched a business reporting tool, ORBIT, which allows easy access to financial and budget information. Currently there are over 260 users across the Agency.

Plans for further improvements:

- Implementing a newly developed Annual Commitment System to foster discussion and agreement between regional and national program offices on FY 2005 regional performance commitments
- Enhancing ORBIT's functionality by expanding the programmatic and performance reporting capability and adding additional data sources.

2. **Agency Efforts in Support of Homeland Security (***formerly, Protecting Critical Infrastructure from Non-traditional Attacks***)**

Scope of Challenge: *EPA needs to develop better processes for ensuring security at Nationally Significant Events, assess vulnerability of water utilities and determine how to measure water security improvements, and better define the Agency's role in protecting air from terrorist threats.*

Agency Position: OIG commends EPA for its efforts to enhance homeland security and its quick response to incidents. However, OIG is concerned that EPA needs to better define expectations and develop systems to measure and analyze program performance effectively to ensure the desired state of security and achieve the goals in EPA's Strategic Plan for Homeland Security.[9] In response to OIG's concerns, EPA led a collaborative effort to revise the EPA Homeland Security Strategic Plan. The revised Plan identifies the range of homeland security activities the Agency conducts, taking into account the evolving role of the U.S. Department of Homeland Security. The Agency also spent considerable time and effort mapping out responsibilities and strategies to address recently issued Presidential Directives.[10]

To help improve processes for cross-agency Homeland Security coordination, EPA created and convened the Homeland Security Policy Coordination Committee (PCC). The PCC serves as an executive committee that can be activated in the event of a homeland security related attack and acts to ensure that the Agency's senior political leadership is brought together to provide policy direction to responders.

Highlights of progress:

- Established the Homeland Security Collaborative Network to coordinate and directly address high priority, cross-Agency technical and policy issues related to homeland security programs.
- Developed a better understanding of each EPA program's homeland security efforts for the White House and DHS.
- Implemented key homeland security efforts including budget planning and implementation at EPA.
- Supported federal law enforcement Agencies at Nationally Significant Events (e.g., U.S. Secret Service and FBI during the G-8 Nations Summit).
- Participated in over 150 training exercises to improve homeland security readiness, including a field exercise at Ft. Leavenworth, KS that tested the Agency's ability to respond to multi-state radiological contamination resulting from a downed satellite.

Plans for further improvements:

- Preparing the Agency to fulfill its responsibilities under new Homeland Security Presidential Directives.
- Establishing function-specific liaison responsibilities to enhance the effectiveness of communication across EPA.
- Developing a homeland security information management system.

3. **Superfund Evaluation and Policy Identification**

Scope of Challenge: *OIG believes EPA faces significant challenges in its ability to meet effectively current and future Superfund needs and must establish a strong working relationship between states and tribes in order to achieve its environmental goals.*

Agency Position: While acknowledging its fiscal and program management challenges, EPA does not believe it has any weaknesses in the area of Superfund evaluation and policy identification. In an April 21, 2004 memorandum on *EPA's Key Management Challenges,* OIG stated that EPA needs to identify and provide solutions to new program challenges associated with (1) lack of Trust Fund appropriation and requesting funds from general appropriations, (2) the inability to fund all sites that require funding, meet increasing demands for program efficiencies and establish site prioritization processes, (3) the determination of potential future financial and environmental liability for sites that have not yet formally entered the Superfund program, and (4) the lack of viable responsible parties, adequate financial assurance for site cleanup, and the ability to rely consistently on other programs to support Superfund needs.

Subject to the same budget constraints as are other federal programs, Superfund program for the past 2 years has been unable to fully fund all of the sites in the queue for construction. As a result, the President requested a $150 million budget increase in FY 2004 and 2005 to begin new construction projects at sites throughout the country. Also, over the past 10 years EPA Superfund appropriation has remained consistent, roughly between $1.1 and $1.4 billion per year. To promote program cost-effectiveness, the Agency has initiated several efforts, including prioritizing sites for listing on the National Priorities List (NPL), reviewing remedy options for

sites over $30 million, and establishing a nationwide priority setting process for remedial action. The Superfund Pipeline Management Review ensures that Superfund resources are distributed throughout the Superfund "pipeline" to maximize results: a panel reviews risks and other factors and alternatives and sets site priorities for NPL listing and construction funding. While the OIG suggested that EPA needs to determine potential future financial and environmental liability from possible new sites, the Agency does not maintain an inventory of sites that have not yet entered the Superfund program. Likewise, it keeps no inventory of companies with financial problems that might also have environmental liabilities. Extensive research is required to identify potentially responsible parties or other sources to finance site cleanups. Through EPA's Environmental Financial Advisory Board, the Agency has undertaken a major effort to better understand financial assurance mechanism and how they might be improved in waste management programs.

OIG recognizes that the fundamental pieces of the tribal program already exist, and that EPA has made significant efforts to enhance the role of tribes in the Superfund program. OIG states that the Agency's three major initiatives since 1998 have produced some positive results and lessons that have been incorporated into the Agency's current strategy for managing the role of tribes. The Superfund program will continue to coordinate with tribes and EPA regions in implementing a final Superfund tribal strategy

Highlights of progress:

- Initiated and completed an internal review of the Superfund Program (120 Day Study) to identify opportunities for program efficiencies that would enable the Agency to begin and ultimately complete remedial actions with current resources.
- Completed data collection and analysis on hazardous sites impacting Indian country.
- Worked through the FY 2005 planning process to identify regional resource needs related to cleanup of contaminated sites.
- Worked to increase oversight of the Tribal Association on Solid Waste and Emergency Response (TASWER) cooperative agreement, in accordance with commitments to OIG.

Plans for further improvements:

- Continuing work with the regions to allocate resources and maximize results.
- Finalizing an OSWER Tribal Strategy, that will require completing the Superfund Tribal Strategy and implementation plan.
- Developing guidance on how regions should consult with tribes on specific sites in the context of the Superfund program and criteria for developing tribal core program agreements for significant tribal relationships.
- Reviewing, implementing, and tracking progress of recommendations from the 120-Day Study on Superfund to identify opportunities for program efficiency.

4. **Information Resources Management (IRM) and Data Quality**

Scope of Challenge: *EPA faces a number of challenges (e.g., implementing data standards to facilitate data sharing; establishing quality assurance practices to improve the reliability, accuracy, and scientific basis of environmental data) with the data it uses to make decisions and monitor progress against environmental goals.*

Agency Position: EPA has made significant progress in addressing its data management challenges. The Agency acknowledged *Data Management Practice*s and *Laboratory Quality Systems Practices* as Agency weaknesses under FMFIA in FY 2001. However, OIG believes EPA needs to continue its efforts to identify what data are necessary to manage its programs and work with its partners to ensure that such information is captured and reported in a timely, accurate and consistent manner. The Agency believes it has addressed the management challenges related to *Laboratory Quality System Practices* and is scheduled to close the *Data Management* weaknesses in FY 2005.

EPA continues to improve data management and use by planning and providing tools for sharing data effectively, integrating data, and identifying key data gaps. EPA has also implemented improvements to assure that environmental data used to support EPA's decisions are of documented quality. In FY 2004, EPA developed guidance on the use of administrative control designations to help staff recognize the type of information that must be protected from unauthorized disclosures. To further improve environmental information management, the Agency will focus on developing and implementing appropriate data management policies and procedures and creating a plan for addressing data gaps.

To address the data quality issue, EPA has implemented improvements to strengthen its oversight and management of *Laboratory Quality Systems Practices* issue. EPA provided tools, technical evaluations and training for environmental laboratories to help laboratory management ensure that their operations produce data of documented quality for use in decision-making. In addition, EPA coordinated discussions with Agency and outside representatives on how to assure the quality of laboratory data. The results of the discussions were incorporated into a training course and recommendations for best management practices.

In February 2004, EPA's Forum on Environmental Measurements (FEM) of the Science Policy Council developed a policy directive ensuring and documenting the competency of Agency laboratories. Under the policy, Agency laboratories will demonstrate on-going performance through independent external assessments, seeking accreditation or certification as appropriate for their operations. Laboratories' performance will also be demonstrated through participation in inter-laboratory comparison studies. In August 2004, each Agency laboratory submitted a plan to the FEM that describes their activities and schedules to implement the policy directive. On an on-going basis, EPA's Office of Environmental Information oversees laboratory quality system implementation by annually reviewing organizations' Quality Assurance Annual Report and Work Plans and will report annually to the FEM.

Highlights of progress:

- Completed version 1.0 of the Agency Enterprise Architecture (EA), of which the data architecture is a component.
- Revised Information Resource Management (IRM) Policy Manual, Agency Directive 2100.[11]
- Developed a policy and is implementing procedures to support the development of a metadata management program within the Agency that requires the Agency's data to be sufficiently documented.

- Established the technical and business guidelines for the use of standard data elements.[12]
- Launched the Environmental Indicators Initiative, which carries out the first objective under Goal 1 of the EPA Strategic Information Plan (i.e., the need to identify key data gaps and for the Agency to fill the gaps).

Plans for further improvements:

- Developing a process for identifying key data gaps.
- Facilitating further discussion within the Agency and with Federal partners on the data gaps identified in the *Draft Report on the Environment* 2003. [13]
- Working with states and tribes to develop the National Environmental Information Exchange Network to streamline reporting and improve data sharing.
- Developing an executive report describing the completion of each corrective action, and referencing any relevant supporting EPA documentation.
- Completed the EPA Strategic Information Plan: A Framework for the Future.

5. **Grants Management and Use of Assistance Agreements**

Scope of Challenge: *EPA needs to improve oversight for awarding and administering assistance agreements to ensure effective and efficient use of resources. Recent OIG and GAO audits continue to identify problems in the use of assistance agreements.*

Agency Position: Assistance agreements are one of EPA's primary mechanisms for carrying out its mission to protect human health and the environment. The Agency awards approximately half of its budget to organization through assistance agreements. Thus it is imperative that the Agency use good management practices in awarding and overseeing these agreements to ensure they contribute cost effectively to attaining environmental goals.

EPA acknowledges OIG's and GAO's assessment of assistance agreements management as an Agency weakness and management challenge, but believes it is making significant progress in developing and implementing a comprehensive system of management controls to correct grants management problems. In FY 2004 EPA began implementing the Agency's Grants Management Training Plan, designed to enhance the skills of EPA personnel at all levels who are involved in grants management and to improve grant recipient's understanding of federal grant requirements. In addition, EPA is the first Agency to successfully enhance and deploy the Integrated Grants Management System (IGMS), which improves efficiency by fully automating the grants processes, in regional offices. EPA's Grants Management Council composed of EPA's Senior Resource Officials, was established in FY 2003 to provide the leadership, coordination, and accountability needed to implement the plan.

Highlights of progress:

- Developed the Grants Competition Policy which is designed to use competition to promote fairness in the grant award process and help ensure that EPA funds the most qualified grant applicants
- Issued EPA Order 5700.6, a comprehensive post-award monitoring policy that requires base line monitoring on all active awards and establishes an advance monitoring

performance requirement of 10 percent of all EPA's active grantees and mandatory reporting of the reviews in a Grantee Compliance Database.
- Instituted a new approach to internal reviews that provides EPA with an early warning system to detect emerging grant weaknesses.
- Conducted several classroom training sessions for non-profit and Tribal recipients to educate them about their grants management responsibilities.
- Issued Agency guidance which requires all non-SES staff and managers' performance standards and position descriptions to accurately reflect grants management responsibilities.

Plans for further improvements:
- Continue implementation of the Grants Management Training Plan[14] which requires expanded training for project officers, grant specialists, and potential grant recipients in areas identified in OIG and GAO audits reports and EPA's own internal reviews.
- Modifying the current competition policy to enhance and expand competition to lower the competition threshold and improve the quality of the competition reviews.
- Expanding deployment of the Integrated Grants Management System to EPA Headquarters to leverage technology to improve program performance.
- Enhancing the Grantee Compliance Database to include more information to make it easier for EPA to identify systematic issues early and take appropriate corrective action
- In FY 2005, issue a new EPA Order on pre-award reviews to help ensure that non-profit applicants have the administrative and programmatic capabilities to manage EPA grant funds.

6. Challenges in Addressing the Air Toxics Regulatory Program Goals

Scope of Challenge: *While EPA has achieved its Phase I goal of issuing technology-based standards, there are concerns about EPA's efforts to assess and implement Phase 2, residual risk standards, as well as the accuracy of air toxics data used in measuring progress.*

Agency Position: OIG believes the implementation of phase 2 of the air toxics program—residual risk program—could present greater challenges than phase 1, issuing technology-based maximum achievable control technology (MACT) standards.[15] In February 2004, EPA completed phase 1 and is now working on phase 2 effort, which includes developing the databases and tools required to perform the risk characterizations.

Since the Clean Air Act (CAA) Amendments of 1990, the Agency has worked to prioritize its resources for the Air Toxics Program to target sources with the greatest emissions and risks. The Agency has completed a key provision of the CAA to address major stationary sources of air toxics by issuing 96 Maximum Achievable Control Technology (MACT) standards that apply to 174 industrial categories. This effort has already resulted in annual reductions of 1.5 million tons of toxic air emissions and will achieve even greater reductions when all sources come into full compliance by 2007. Although the Agency has made great progress, it faces significant workload and resource challenges to fully implement these CAA requirements. However, the Agency has developed a strategy that prioritizes resources to maximize risk reduction. To date, the Agency has completed 15 area source standards, and is working on

developing standards for an additional 25 area source categories, projected for completion in 2008. Once completed, these 40 standards will address well over 90 percent of the toxicity-weighted emissions from area sources. EPA recently proposed its first residual risk standard for coke ovens and is developing rules for 7 other industrial categories. EPA will continue to develop tools for risk screening and assessment and to conduct training workshops for states, local agencies, and tribes that will help streamline the Residual Risk Program. To track progress and ensure measurable reductions in air toxics, EPA is improving its air toxics monitoring network and is continuing to update the toxics inventory and exposure and risk estimates through the National Air Toxics Assessment every three years.

Rather than expending resources now on the last 30 area source categories, which represent only 10 percent of the area source toxicity-weighted emissions, EPA's strategy includes first addressing other opportunities for more significant toxic emission reductions. The CAA requires that the Area Source Program include a community support component because communities may experience disproportionate risks when there are numerous air toxic sources. Communities may be able to reduce some toxic sources more quickly and effectively through local initiatives than through national regulations. For several years, the Agency has provided funding and support in the way of tools and training to communities and tribes to address their unique air toxic issues. EPA has aggressively been working on mobile source regulations through reformulated gasoline, engine standards, and other efforts, as well as a voluntary diesel retrofit program. Based on 1990 levels, we expect a 90 percent reduction in diesel emissions and a 60 percent reduction in other mobile source air toxics by 2020. EPA has developed other voluntary programs to reduce exposure to indoor air toxics, such as the Tools for Schools Program, which has reduced exposure to toxic emissions for 4.8 million children.

EPA has developed and is implementing a comprehensive strategy for achieving toxic risk reductions, and intends to work with its authorization and appropriations committees on these issues. EPA will also adjust its strategy as necessary both to reflect legal constraints and to maximize air toxic risk reductions.

Highlights of progress:

- Developed the Human Exposure Model as a tool to improve the quality of risk predictions for major point sources of air toxics.
- Developed the Total Risk Integrated Methodology to aid in multi path way risk characterizations.

Plans for further improvements:

- Developing an innovate approach to quickly assess low-risk facilities and exempt them from future regulations.
- Developing an innovate approach to assess impacts from entire facilities thus grouping together several source categories
- Continuing to improve the quality and timeliness of its air toxic emissions inventories.
- Developing an air toxic monitoring network to supplement the "toxicity-weight emissions" as a future measure of risk reduction progress

7. **Human Capital Strategy Implementation/Employee Competencies**

Scope of Challenge: *While EPA is making progress on human capital efforts, it must continue developing and implementing its Human Capital Strategy and focus on accountability and better communication of planned strategies.*

Agency Position: OMB and OIG acknowledge the Agency has made progress in the area of human capital. In FY 2004, EPA achieved "green" progress and "yellow" status scores for successfully implementing the human capital component of the PMA. However, EPA continues to face significant challenges in maintaining a workforce with the highly specialized skills and knowledge required to accomplish its work. For example, retirement projections for FY 2004 through FY 2007 indicate that 27 percent of the EPA workforce will be eligible to retire within the next 5 years, including 26 percent of the scientific-technical workforce and 54 percent of the Senior Executive Service. EPA is working to develop a systematic approach to workforce planning, based on reliable and valid workforce data that ensures the Agency can continue to fulfill its legal, regulatory, and fiduciary responsibilities.

To ensure that the Agency's Human Capital activities support the agency mission and are in compliance with the merit system principles, the Agency completed a Human Capital Strategy (HCS) and created a National Human Capital Strategy Office. The HCS is designed around four key areas: Strategic Alignment, Program Effectiveness, Operational Efficiency, and Measures of Legal Compliance. In addition, in FY 2004 the Agency began documenting the relationship between every employee's work and the Agency's strategic goals to fulfill Agency commitment to the Office of Personnel Management (OPM) and OMB. EPA has taken the crucial steps in the areas of workforce planning and staff development, with particular emphasis on management development.

EPA continues to invest in the development of its workforce with the implementation of the Workforce Development Strategy (WDS), a comprehensive set of developmental programs. The WDS is designed to link needed competencies to mission needs, along core business lines, and aligns with the core competencies identified by OPM for senior executives. EPA offers a developmental program that addresses the needs of all employees from administrative personnel to executive staff.

Highlights of progress:

- Upgraded the current version of PeopleSoft to the web-enabled version and implemented the automated time-keeping and payroll processes.
- Completed the advertisement and screening of EPA's seventh Intern Program class. The Agency is poised to hire up to twenty-five new candidates in this highly successful program to infuse new talent into the Agency. Over the past six years, the Agency has facilitated the hiring of 191 highly qualified and diverse interns and placed them in key programmatic positions across the Agency.
- Conducted a human resources (HR) assessment for Headquarters HR professionals to identify current skill/competency requirements and determine existing proficiency levels. This was an initial step towards implementing the HR Certification Program and training that will focus on current skill gaps and development needed to support the changing role of HR professionals.

- Implemented an intensive reorganization initiative of the human resources program. A major part of this reorganization focused on the creation of the new office, "National Human Capital Strategy Office" which assigned specific responsibilities to ensure the Human Capital Strategy is implemented

Plans for further improvements:

- Focusing efforts on generating an Agency-level view of our workforce needs complemented with "local" strategic workforce planning data.
- Continuing to invest in the development of an internal coaching cadre which offers one-on-one coaching for our SES Candidates and for managers after completion of a 360 Assessment.
- Planning to implement an Agency-wide mentoring program to provide the support and nurturing required to ensure that our workforce can fully develop to their maximum potential.

8. **Information System Security**

Scope of Challenge: *Due to the dynamic nature of information security, EPA needs to continue its emphasis and vigilance on strong information security.*

Agency Position: OIG believes EPA needs to take additional actions to protect its information and systems. While the Agency agrees that it needs to continue its emphasis and vigilance on strong information security, EPA believes it has addressed the specific management control issues related to information systems security. In FY 2001, EPA acknowledged this topic as an Agency weakness under FMFIA. The Agency completed the corrective actions and validated the effectiveness of its comprehensive strategy to systematically address security related deficiencies in FY 2002.

EPA continues to improve the management and oversight of the Agency information security program and has successfully demonstrated a high level of security for its information resources and environmental data. In FY 2004, EPA established management controls to strengthen the Agency-wide information security program and ensure that it collects data of sufficient quality to verify Agency-wide implementation; has adequately trained security staff; and ensured that security practices are in place throughout the entire life cycle of information. Additionally, for the first time, EPA earned a "green" status score s under PMA for *E-Government* for its information security management controls and processes that are in place at the Agency. EPA is working to finalize the System Life Cycle Policy and integrate it with the Agency's Capital Planning and Investment Control process in FY 2005 for the FY 2007 budget year.

Highlights of progress:

- Established and implemented a testing and evaluation process to develop information sufficient to verify the effectiveness of Agency-wide Information Security Program implementation.
- Developed and ensured implementation of a training program to provide information security training to EPA employees with significant information security responsibilities.

- Incorporated information security processes into the life cycle policies and procedures for Agency information systems.
- Established policy and management framework to support development and testing of up-to-date contingency plans for Agency information systems.

Plans for further improvements:

- Continuing to verify Agency-wide implementation
- Ensuring incorporation of information security into Agency information system life cycle.
- Reviewing Agency systems for conformance to security requirements of revised System Life Cycle Policy through the Capital Planning and Investment Control (CPIC) process,.
- Continue to require systems without up-to-date tested contingency plans to submit milestones to be tracked in the Agency's central POA&M project management system.

9. **Management of Biosolids**

Scope of Challenge: *Although EPA is directing renewed attention to biosolids, EPA needs to implement a national biosolids program and establish strong enforcement to meet CWA to reduce risks and maximize the beneficial use of sewage sledge.*

Agency Position: OIG is concerned that "biosolids" will pose a potential risk until the Agency can adequately implement a national biosolids program and has the scientific information to make informed decisions about biosolids. EPA continues to maintain an active presence in biosolids compliance and enforcement activities, and is undertaking research and analysis initiatives to improve and expand its scientific understanding and management of the biosolids program. EPA will continue to address biosolids violations and instances where biosolids applications endanger human health or the environment.

EPA continues to meet its statutory obligations under the Clean Water Act (CWA) pertaining to biosolids (40 CFR Part 503). EPA had identified land application of biosolids as a low risk activity, and thus had given low priority to enforcement and compliance as well as funding additional studies pertaining to any potential health effects that might arise from the land application of biosolids. EPA's enforcement and compliance activities are tracked in the Integrated Compliance Information System (ICIS) database and include enforcement actions also entered into the CWA Permit Compliance System (PCS). The ICIS database reports for FY 1995- 2003, over 500 federal enforcement actions taken to address violations of Part 503, sewage sludge standards. In December 2003 EPA published a *Federal Registe*r notice which presents 14 activities the Agency expects to begin or complete with the next 2-3 years to strengthen the sewage sludge use and disposal program (see highlights below for examples).

To assist states and regions in their oversight of the biosolids program, the Agency has either in place or in development tools to assist and promote compliance with biosolids regulatory requirements. In the compliance monitoring and compliance assistance areas, a number of activities are completed or ongoing to respond to concerns raised by the OIG. The ICIS/PCS database includes 494 regional and state biosolids inspections for FY 2000 - 2003. Even with this significant inspection presence, the inspection data indicate that a number of

states are not covered by the ICIS/PCS information for biosolids inspections, so the actual number of biosolids inspections is probably more than those included in the database. Part of the PCS Modernization effort is to get more states information included in the system. (See PCS Modernization discussion in the Highlights section below).

Highlights of progress:

- Produced Clean Water Act / NPDES Computer-Based Inspector Training which includes a segment on conducting Sewage Sludge (Biosolids) inspections.
- As part of the PCS modernization, a separate workgroup (including both states and EPA) was devoted to defining the data needs of the biosolids program. The roll out of the modernized PCS data elements for use by the states will be staged over several years, with the initial availability for direct user states, and follow-on availability for indirect user states, which will batch load information to the system.
- Publication in the Federal Register, at 68 FR 75531, of the 14 - point action plan which includes: biennial review of the Part 503 Standards for the potential addition of new pollutants; field studies on the land application of sewage sludge; development of improved analytical methods for the quantification of microbial pollutants in sewage sludge; and assessing the feasibility of developing a quantitative microbial risk assessment for land applied sewage sludge. The other parts of the action plan can be found in the Federal Register.

Plans for further improvements:

- EPA plans to monitor scientific findings in this area and will re-evaluate its compliance and enforcement approach as needed.

10. **Reduce the Backlog of National Pollutant Discharge Elimination System (NPDES) Permits**[16]

Scope of Challenge: *While EPA is making progress in reducing the backlog, OIG is assessing the environmental impact of the backlog, how well the backlog measures reflect impacts, and how successful EPA and states have been at managing the backlog.*

Agency Position: The NPDES permit backlog began as a material weakness in FY 1998 and eas reduced to an Agency weakness in FY 2002. Based on Permit Compliance System (PCS) data in November 1998, only 74 percent of permits for major facilities and 52 percent of permits for minor facilities had been reissued in a timely manner following expiration. The threat of the backlog to the environment is that expired NPDES permits may not reflect the most recent applicable effluent limitations guidelines, water quality standards, or Total Maximum Daily Loads. Without timely issuance of high quality permits reflecting changed requirements, necessary improvements in water quality will be delayed.

EPA has made good progress in reducing the backlog and has accelerated efforts to complete remaining actions and validate success. In FY 2004, 85 percent of major facilities had current permits and 87 percent of minor facilities were covered by current permits. In FY 1998 the percentages were 74 and 52 percent, respectively. The continuing challenge of issuing major

permits is due to competing priorities and the increasing complexity of permitting in a watershed context. However, the challenge is being addressed by the Permitting for Environmental Results initiative, which is designed to focus on permits expected to produce the most significant environmental results. An increasing number of states are issuing permits on a watershed basis and incorporating other innovative techniques, such as trading, to address the NPDES backlog and issue permits to reduce or eliminate discharges into the nation's waters. EPA also expects the reduction in pollutant loadings to increase as EPA continues to implement the revised CAFO regulation, and focuses on the most environmentally significant permits.

In FY 2005 the Agency will validate the effectiveness of the backlog reduction strategy through data analysis, including quarterly monitoring of permit status and trends in related aspects of water programs through data systems and newly developed oversight tools

Highlights of progress:

- Developed and began implementation of a national strategy to increase permit issuance, Permitting for Environmental Results that focus scarce permit writing resource on environmentally significant permits, improve quality of national permit issuance data, and reduce the number of backlogged NPDES permits. The strategy also sets forth goals for permit issuance that were to be met by the end of calendar year 2004. Over the past 5 years, state and regional effort to implement EPA's permit issuance strategy has significantly reduced the permit backlog.
- Asked regions to work with States to develop permit issuance plans to focus on environmentally significant permits and ensure the integrity of core NPDES permit program implementation.
- Strengthened NPDES program efficiency by developing tools to streamline the NPDES permitting process (i.e., encouraging states to use general permits, and automating the permit writing process).
- Developed and demonstrated an *E-NPDES* tool to generate higher quality permits and reduce potential errors in developing water quality-based effluent limits in permits.

Plans for further improvements:

- Working with 40 states to modernize the Agency's Permit Compliance System (PCS).
- Conducting NPDES Permit Writers' course for regions and states to promote awareness of regulatory requirements
- Developing state profiles that identify the strengths and innovations of each State program that can be shared with other States, as well as needed program enhancements that will improve the quality and/or integrity of the State's NPDES program.
- Conducting data quality assurance reviews, including elimination of incorrect and outdated records from PCS, and increase the percentage of permit records with locational data, to help better characterize the environmental impact of backlog.

FY 2004 MANAGEMENT'S REPORT ON AUDITS

The Inspector General Act of 1978, as amended,[17] requires federal agencies to report to Congress on the status of their progress in carrying out audit recommendations. Audit management serves as a tool in assessing the Agency's ability to meet its strategic objectives. EPA continues to strengthen its audit management practices and has improved its ability to address and complete corrective actions in a timely manner.

In FY 2004, EPA was responsible for addressing OIG recommendations and tracking follow-up activities on 249 audits. The Agency achieved final action (i.e., completion of all corrective actions associated with an audit) on 136 audits, which include Program Evaluation/Program Performance Audits, Assistance Agreements Audits, Contracts Audits, and Single Audits. Results achieved during FY 2004 for the Agency's audit management activities are summarized below.

Final Corrective Action Taken. EPA completed final corrective actions on 15 performance and 121 financial audits. Of the 121 financial audits, OIG questioned costs of more than $ 97 million (i.e., costs incurred by the Agency from contractors or grantees which may be ineligible by law or regulation; not supported by sufficient documentation; or unnecessary expenditures). After careful review, OIG and the Agency agreed to disallow approximately $ 35 million of these questioned costs (i.e., either deny payment or seek reimbursement for payments already made). In the performance audit arena, EPA managers and the OIG did not identify funds that could be put to better use.

Final Corrective Action Not Taken. As of the end of FY 2004, 112 audits were without final action and have not been fully resolved (excluding those audits with management decisions under administrative appeal by the grantee).

Final Corrective Action Not Taken Beyond 1 Year. Of the 112 audits, EPA officials had not completed final action on 29 audits within 1 year after the management decision (i.e., the point at which the OIG and the Action Official reach agreement on the corrective action plan). Because of the complexity of the issues, it often takes Agency management more than 1 year after management decisions are reached with OIG to complete the agreed-upon corrective actions. These audits are listed below:

Audits of Program Performance: Final action for program performance audits occurs when all corrective actions have been implemented. This may take longer than one year when corrections are complex and lengthy. These include audits of EPA's financial statements. EPA is tracking 20 audits in this category.

Office of the Chief Financial Officer:
P00011 General Security Controls at EPA Finance Centers

Office of Administration and Resource Management:
P00029 Interagency Agreements Follow-up
P00011 Superfund Interagency Agreements
P00005 CFDA Program 66.606

Office of Air and Radiation:
S00016 Consistency in EPA's Anticipated Ozone Designations
P00019 Air Emissions Trading

P00018 EPA's Oversight Controls for Assistance Agreements
P00007 Pre-award Reviews of Assistance Agreements
P00008 EPA Could Increase Use of PBSC

Office of Prevention, Pesticides & Toxic Substances:
101378 Pesticides Inerts
304030 Pesticides Banned (follow-up)

Office of Water:
P00012 Controlling and Abating Combined Sewer Overflows

Office of Solid Waste and Emergency Response:
P00028 RCRA Corrective Actions
S00007 EPA Actions Concerning Libby SF Site
P00011 Superfund Interagency Agreements

Office of Enforcement & Compliance Assurance
P00006 ENF Agreement Compliance
P00004 Quality of Data in Enforcement's DOCKET System

Region 2:
P00001 Combined Sewer Overflows

Region 6:
P00005 Region 6 Needs to Improve Oversight of LA ENV Programs

Region 9:
100095 Audit of California State FY2000 CWSRF Financial Statements

Audits of Assistance Agreements: Final action for assistance agreement audits can take longer than a year as the grantee may appeal, refuse to repay, or be placed on a repayment plan that spans several years. The Agency's Audit Follow-Up Coordinators are tracking 4 audits with financial or associated corrective actions taking longer than one year to complete.

Region 2:
801045 Parsippany – Troy Hills NJ

Region 5:
104047 Indianapolis, IN 4
702019 Wayne CO MI

Region 6:
303014 St. Tammany Parish SEW DIS 7 LA

Single Audits: Final action for single audits occurs when non-monetary compliance actions are completed. This may take longer than one year to implement if the findings are complex or if the grantee does not have the resources to take corrective action. Single audits are conducted of non-profit organizations, universities, and state and local governments. EPA is tracking completion of corrective action on 5 single audits for the period beginning October 1, 2004.

Region 5:
300047 Red Lake Band of Chippewa Indians
300048 Red Lake Band of Chippewa Indians

Region 9:
805053 Colorado River Indian Tribes, AZ
805059 Colorado River Indian Tribes, AZ
300141 Pit River Tribe

Audits Awaiting Decision on Appeal. EPA regulations allow grantees to appeal management decisions on financial assistance audits that seek monetary reimbursement from the recipient. In the case of an appeal, EPA must not take action to collect the account receivable until the Agency issues a decision on the appeal. At the end of FY 2004, 39 audits were in administrative appeal.

DISALLOWED COSTS & FUNDS PUT TO BETTER USE

October 1, 2003 – September 30, 2004

Category	Disallowed Costs (Financial Audits)		Better Use (Performance Audits)	
	Number	Value	Number	Value
A. Audits with management decisions but without final action at the beginning of FY 2004.	83	$106,591,146	27	$0
B. Audits for which management decisions were made during FY 2004.	113	$ 3,007,793	25	$0
(i) Management decisions with disallowed costs. (23)				
(ii) Management decisions with no disallowed costs. (90)				
C. Total audits pending final action during FY 2004. (A+B)	196	$109,598,939	52	$0
D. Final action taken during FY 2004	121	$ 35,213,332	15	$0
(i) Recoveries				
a) Offsets		$ 7,993,454		
b) Collections		$ 772,680		
c) Value of Property		$ 0		
d) Other		$ 11,196,584		
(ii) Write-offs		$ 9,508,924		
(iii) Reinstated through grantee appeal		$ 5,741,690		
(iv) Value of recommendations completed.				$0
(v) Value of recommendations management decided should/could not be completed				$0
E. Audit reports needing final action at the end of FY 2004 (C-D)	75	$ 74,385,607	37	$0

Key Management Challenges

(Prepared by EPA's Office of the Inspector General)

EPA continues to make progress in addressing long-standing management challenges identified by the Office of the Inspector General (OIG). Results of a recent OIG survey indicate that EPA senior leaders are committed to strengthening strategic human capital management and linking human capital to program success. EPA continues to enhance its Information Security Program through risk assessments of its major systems, conducting internal and external penetration testing, and monitoring the Agency's firewall and intrusion detection system. EPA is also working closely with Federal, state, and local counterparts to strengthen and effectively coordinate on Homeland Security issues.

While EPA continues to address the management challenges, sustained attention and management action must continue to effectively correct outstanding issues. The following table identifies the top management challenges faced by Agency and the relation of the issues to EPA's *Strategic Plan* and the President's Management Agenda.

EPA's Top Management Challenges Reported by the Office of Inspector General	FY 2002[18]	FY 2003[19]	FY 2004[20]	Link to EPA's Strategic Goal	Link to President's Management Agenda
Linking Mission to Management: Development of outcome-based targets.	•	•	•	Cross Goal	Budget and Performance Integration
Agency Efforts in Support of Homeland Security: Implementing a strategy to effectively coordinate and address threats.	•	•	•	Cross Goal	
Superfund Evaluation and Policy Identification: Improving the usefulness of internal evaluations, and implementing program policy decisions.			•	Goal 3	
Information Resource Management and Data Quality: Improving the quality of data used.	•	•	•	Cross Goal	Expanded E-Government
EPA's Use of Assistance Agreements to Accomplish Its Mission: Improving Management of the billions in grant funding awarded by EPA.	•	•	•	Cross Goal	Improved Financial Performance
Challenges in Addressing Air Toxics Program Phase 1 and Phase 2 Goals: Reducing air toxic emissions by improving approach and measures.	•	•	•	Goal 1	
Human Capital Management: Implementing a strategy to develop staff.	•	•	•	Cross Goal	Human Capital
Information Security: Protecting information systems by preventing intrusion and abuse.	•	•	•	Cross Goal	Expanded E-Government
Management of Biosolids: Improving sewage sludge management to sufficiently protect the public.	•	•	•	Goal 2	
Backlog of National Pollutant Discharge Elimination System Permits: Addressing permit renewal backlog for water dischargers.	•	•	•	Goal 2	
EPA's Working Relationship with States: Improving structure for working with states	•	•	[1]	Cross Goal	

[1] In FY 2004, EPA's Working Relationship with States was consolidated in item 1, Linking Mission to Management.

Tier I

Linking Mission and Management

The EPA's new Strategic Plan is superior to preceding plans and includes: (1) recognition of Federal, State, and Tribal partners who implement the majority of Agency programs; (2) consideration of cross-media issues; (3) improved linkages to objectives and sub-objectives; (4) inclusion of a human capital strategy and external factors affecting each goal; and (5) increased focus on achieving measurable results by including elements of risk, cost/benefit analysis, stakeholder consultations, and science. The Plan, however, still does not contain sufficient substantive strategies or resource and schedule commitments leading to the attainment of its stated goals.

In a series of reviews of various Agency activities, we have observed a systematic disconnect between program goals, performance objectives developed in response to the Government Performance and Results Act (GPRA), and measures of effectiveness. For example:

- The Office of Water has not outlined how resources, activities, and outputs will achieve the water security program's goals. The EPA's Strategic Plan for Homeland Security lacks fundamental components, such as measurable performance results and information and analysis, to ensure the greatest practicable reductions in risks to the critical water sector infrastructure.[21]

- The EPA did not have a coordinated strategy integrating children's environmental health efforts into the Agency as a whole, and no active communication process among the program offices and EPA's Office of Children's Health Protection (OCHP). OCHP has no formal mechanism to track performance results or assess the relationships between program costs, activities, and results. More specifically, data and information systems are not available to measure, analyze, and demonstrate overall performance specific to the National Children's Agenda on a continuing basis.[22]

- The EPA has not fully implemented the Executive Order (EO) on Environmental Justice because it has not identified minority and low-income communities, nor defined the term "disproportionately impacted." In the 10 years that the Agency has been actively involved in implementing the EO, it has not developed a clear vision, developed a comprehensive strategic plan, or established values, goals, expectations, and performance measurements.[23]

As noted in prior years, developing outcome based performance measures linked to Agency activities is a challenging undertaking. While work continues, in EPA's Fiscal Year (FY) 2004 Program Assessment Rating Tool (PART) Assessments, the Office of Management and Budget reported that the absence of valid outcome performance data has hindered EPA in evaluating the impacts of its programs on the environment and public health.[24] Recent Office of Inspector General (OIG) reports reinforce the need for continued improvements. For example:

- The EPA needs current, accurate data on the extent of financial and environmental challenges posed by hard rock mining activities to assist management in determining appropriate strategies and actions to address existing and potential mining sites. Without an adequate implementation strategy, it will be difficult for EPA to achieve the environmental protection goals of its National Hard Rock Mining Framework.[25]

- The EPA needs to establish effective program strategies, goals, and specific performance measures and milestones to successfully promote the purchase of recycled goods. Moreover, EPA needs to establish a clear linkage between these Resource Conservation and Recovery Act requirements and the Agency's broad pollution prevention goals.[26]

- The EPA needs to collect sufficient workload information and develop appropriate outcome measures to gauge the overall sufficiency of funds for enforcement activities and to make well informed, investment decisions about the enforcement program.[27]

Continued reliance on output measures makes it difficult for EPA to provide regions and States the flexibility they need to: (1) direct resources to their highest priority activities, and (2) assess the impact of Agency work on human health and the environment.

As EPA works to develop more outcome-oriented performance measures, it must continue improvements to track the cost of achieving environmental results. In response to the need for reliable cost information, the Office of the Chief Financial Officer (OCFO) completed a managerial cost information assessment project to identify the cost information needs of budget and program managers, consider changes to the Agency's cost information systems, and assess trends in the use of cost information. This project resulted in numerous findings and recommendations, and acknowledged that managers need to know the full costs of programs, projects, and activities in order to effectively manage for results.[28]

The EPA's success in implementing cost accounting will rely, in part, on how well OCFO works with programs offices to: (1) define their mission-critical activities; (2) determine where suitable cost data resides and, if not available, how will it be gathered; (3) link information systems to optimize data usability and minimize data integrity concerns; and (4) design cost reports for monitoring program results. Moreover, OCFO will need to reconsider its decision to retain the "GPRA sub objective" as the official Agency cost accounting output, in lieu of a different output that would better reflect the costs of programs, projects, and activities.[29]

The OCFO has missed several milestones in its September 2002 plan to expand cost information at EPA, and the plan relies on a reporting tool that has not yet been implemented. Until implemented, the Agency's ability to expand or provide additional cost information will be significantly inhibited. A continued commitment and close collaboration with EPA's many programs is needed if OCFO is to help provide Agency managers the information needed to support resource decisions, manage costs, and gauge program results.

In FY 2003, EPA issued its first draft *Report on the Environment*, which brings together national, regional, and program office efforts to describe the condition of critical environmental areas and human health concerns. The EPA acknowledges that perfecting this report will be a multi-year process, but preparing the report is a significant step forward. It will allow the

Agency to inventory and report on existing indicators, identify data gaps, and develop plans to address the challenges in filling these gaps[30].

While EPA has begun the process for linking costs to goals, it must follow through by continuing to work with its Federal, State, and Tribal partners to develop appropriate outcome measures and accounting systems that track environmental and human health results across the Agency's new goal structure. This information must then become an integral part of the Agency's decision-making process.

Agency Efforts in Support of Homeland Security

The attacks on the World Trade Center and the Pentagon, the anthrax attack at the U.S. Senate office buildings, and the recent ricin incident all demonstrate that the United States is not immune to terrorist aggression. Since the events of September 11, 2001, there is a growing appreciation and demand to better prepare for, prevent, and respond to potential attacks against the United States.

While the Department of Homeland Security (DHS) has the lead for the unified national effort, many other Federal, state, and local agencies, including EPA, play a vital role in implementing homeland security efforts. In carrying out its mission - *to protect human health and the environment* - EPA has developed chemical, biological, and radiological technical and scientific expertise that enhances the ability of DHS to address potential threats. The EPA also possesses emergency response capabilities that complement the efforts of other Federal agencies. The EPA's role in responding to recent terrorist incidents has further defined and demonstrated the nation's expectations of EPA's emergency response capabilities.

The EPA's *Strategic Plan for Homeland Security* is organized into four mission critical areas:

1. Critical Infrastructure Protection
2. Preparedness, Response, and Recovery
3. Communication and Information
4. Protection of EPA Personnel and Infrastructure

The Public Health Security and Bioterrorism Preparedness and Response Act, signed in June 2002, (Public Law 107-188), specifically tasked EPA with funding and overseeing water system vulnerability assessments and resulting emergency response plans. The EPA has received all of the vulnerability assessments from large utilities and continues to receive the thousands of vulnerability assessments from medium and small water utilities. The EPA is also providing training and assistance in developing emergency response plans. Over the past year, OIG analyzed several of EPA's actions to address critical infrastructure protection and better prepare, respond, and recover from potential incidents. While EPA's efforts to enhance homeland security and quickly respond to incidents are commendable, our reviews found that EPA needs to:

- Develop better processes for identifying, obtaining, maintaining, and tracking response equipment necessary for Nationally Significant Incidents;

- Take action to assess the adequacy and quality of the water vulnerability assessments submitted by water utilities;

- Formulate a strategy to measure security enhancements in the nation's water infrastructure; and

- Better define its homeland security role in protecting air from terrorist threats.

Over the past year, EPA has undertaken a number of efforts to work with Federal, State and local counterparts to enhance critical infrastructure protection. The EPA's success will require simultaneous attention to questions of threat, capabilities and deficiencies, preparedness, management and oversight, as well as effective coordination with EPA's partners at all levels of government and industry[31].

Superfund Evaluation and Policy Identification

In the last several years a number of reports and reviews of the Superfund program have identified troubling obstacles to the Agency's ability to effectively meet the nation's current and future needs for hazardous waste cleanup[32]. These reports show that**:** (1) annual Superfund program needs are not estimated to fall below FY 1999 needs ($1.54 billion) until FY 2006, (2) over the past 13 years, due to falling Trust Fund balances, the percent of Superfund appropriations coming from general revenues, rather than the Trust Fund, has gone from zero to 56 percent, (3) in some cases the Agency is unaware of what its most pressing future needs might be, or the ability of responsible parties to realistically cover cleanup costs, (4) the Superfund program cannot meet all of its current reported needs for cleanup and has stopped or slowed down cleanup actions at several sites across the country, and (5) other cleanup programs, such as some State programs, are not financially positioned to take on greater Superfund responsibilities.

Information from recent reports points to significant challenges EPA faces in managing the Superfund program now and in the future. However, despite having its own processes for evaluating and reforming the program, EPA has failed to identify, or communicate, the current fiscal and other program management challenges that are causing great pressure and attention on the program.[33] For example, in 1989, 1991, and 2003, respectively, the Agency completed a "90-day study, a "30-day task force", and is now completing a "120-day study". Collectively, these have made, or promise to make, recommendations to provide for efficient and effective cleanups, get responsible parties to pay for cleanups, streamline the Superfund process, accelerate private party cleanups, and identify ways to direct more funds to long term Superfund cleanup actions, among others. Moreover, in 1993 EPA began a series of 49 reforms to make the Superfund program "faster, fairer, and more efficient". These reforms focused on improving the effectiveness of cleanups, reducing litigation and transaction costs, making cleanup decisions more cost-effective and encouraging the redevelopment of cleaned up sites, among others. Last, in response to Resources for the Future's 2001 report on the future costs of Superfund, EPA

established a Superfund Subcommittee to the National Advisory Council for Environmental Policy and Technology. The committee has completed its review on the "role of the National Priorities List, the role of Superfund at so called mega sites, and measuring program performance". However, the committee's final March 2004 report indicates that consensus recommendations could not be reached on every topic.

Recognizing that tribes are important partners in implementing the Agency's environmental programs, the Agency has undertaken three major initiatives since 1998. These include: (1) a 1998 plan to enhance the role of States and tribes in the Superfund program, (2) a 1999 Office of Solid Waste and Emergency Response action plan to respond to impediments in the implementation of tribal waste programs, and (3) the creation of the Tribal Association on Solid Waste and Emergency Response (TASWER) to provide for tribal involvement in policies, training, education and a tribal research center. These initiatives have produced some positive results and lessons that have been incorporated into the Agency's current strategy for managing the role of the tribes in the Superfund program.

However, a recent OIG evaluation found that key actions remain incomplete, the Agency's current strategy is stalled, and it cannot be effectively implemented without change. The Agency's tribal strategy has faltered because it does not have a detailed implementation plan with milestones, priorities, resource needs, and corresponding measures to track progress and effects of the strategy. In addition, the strategy cannot be effectively implemented without critical information, including an inventory of hazardous waste sites on Indian lands. We reported in January 2004 that the Agency worked for several years to produce this inventory but has been unsuccessful due to TASWER mismanagement and lack of Agency oversight.[34] Additional factors impacting the lack of progress include little emphasis from senior Agency leadership and the failure to include Regions in developing the strategy, which has resulted in divergent regional programs that operate under different policies, procedures, and priorities. Some regions have incorporated tools to enhance their relationships with tribes (consultation procedures, memorandum of agreements, special training, and establishing tribal consortia), but the Agency has no mechanism for sharing information among regions to provide learning or improvement opportunities. An on-going OIG case study evaluation of EPA-tribal relationships shows that establishing government-to-government relationships, maintaining frequent communication and information sharing, having responsible, knowledgeable and consistent EPA project managers, among others, were characteristics of strong EPA-tribal relationships.

If EPA is to continue to make progress enhancing the role of tribes in the Superfund program it needs to (1) obtain critical information on where hazardous waste sites are located in Indian country, (2) update the Agency's strategy to reflect inventory information, (3) obtain Regional input and develop implementation plans for the strategy that include milestones, priorities, and resource needs, (4) provide clear guidance on tribal consultation and establish site-specific written agreements for significant tribal relationships, and (5) establish a forum for exchanging best practices and lessons learned in establishing and maintaining effective relationships with tribes. A strong working relationship between EPA and the States and Tribes is necessary if environmental goals are to be achieved. This issue warrants continued attention by EPA management.

Clearly, from the time Superfund was created in 1980 to the present, the Agency can be credited with reducing risks at hazardous waste sites across the nation, identifying and implementing needed reforms, instituting program infrastructure and making progress in cleaning up the nation's most contaminated sites. However, although the Agency has a long history of internal-program review, recent challenges identified through external reviews of the Superfund program point out that there are weaknesses in EPA's ability to identify, evaluate or communicate significant issues related to the program's current and future needs. If the Agency is to maintain the public's trust and confidence in its ability to effectively manage the Superfund program and protect human health and the environment at the nation's most contaminated waste sites, it needs to demonstrate the ability to proactively identify and address the program's most serious challenges. This is particularly important when the Agency has processes in place to accomplish this. In addition, effective and credible program planning, budgeting and resource allocation are accomplished when the Agency is informed of what the program's current and future challenges and needs are.

The EPA should continue its important internal evaluation and reform activities that have characterized the Superfund program since 1989. However, changes or modifications in its evaluation and policy identification process are needed to respond to new challenges. In the future, the Agency will need to identify and provide solutions for major program challenges and policy decisions, including, challenges associated with (1) lack of Trust Fund appropriations and requesting funds from general appropriations, (2) the inability to fund all sites that require funding, including increasing demands for program efficiencies and establishing site prioritization processes, (3) determining potential future financial and environmental liability from sites that have not yet formally entered the Superfund program, and (4) lack of viable responsible parties, inadequate financial assurance for site cleanup, and the inability to consistently rely on other programs to support Superfund needs.

Information Resources Management (IRM) and Data Quality

The EPA acknowledges IRM data management policies as an Agency-level weakness under the Federal Managers Financial Integrity Act (FMFIA) and has specifically targeted various components for improvement.[35] The EPA faces a number of challenges with the data it uses to make decisions and monitor progress against environmental goals. These challenges cover a broad range of inter-related activities including: using enterprise and data architecture strategies to guide the integration and management of data and to make investment decisions; implementing data standards to facilitate data sharing; and establishing quality assurance practices to improve the reliability, accuracy, and scientific basis of environmental data, including data derived from laboratories. The EPA and most States often apply different data definitions, and sometimes collect and input different data, resulting in inconsistent, incomplete, or obsolete consolidated national data.[36] However, developing a robust data management program remains a complex effort, and several areas require continued attention to ensure effective implementation.[37]

In 2003, EPA updated its Enterprise Architecture Plan to integrate the target architecture with the Federal Enterprise Architecture reference models and the Agency's new Strategic Plan.[38] One of EPA's goals is to integrate its environmental, research, and administrative 'business domains,'[39] and the revised plan includes a Sequencing Plan Migration Framework to help guide information technology (IT) investment decisions by setting the path and priority order for moving systems from the baseline towards the target architecture.[40] The EPA is currently developing business criteria to migrate systems within the Agency's policy framework.[41] Moreover, during FY 2004, EPA plans to begin actual construction of the central services necessary to support the target architecture. The EPA admits that this is the largest IT program in its history, and has created a new organization to manage and coordinate the many parts that are essential to realizing the targeted central services concept (e.g., an enterprise portal, business warehouses, geo-spatial services, identity management, and shared analytical tools).[42]

Addressing common development practices and implementing data and technology standards also are essential components for establishing EPA's suite of central services. While EPA has developed several core registry systems and metadata registries**,** it has yet to implement a 1998, agreed-upon, OIG recommendation to formally revise its policies and procedures supporting an Agency standards program.[43] Also, while EPA has developed and formally approved twelve data standards, and continues to partner with the Environmental Data Standards Council to develop additional standards for environmental information collection and exchange,[44] the true challenge lies in the implementation of the approved standards, because many parties must follow through for EPA and others to realize the benefits. Some of the approved standards will not be fully implemented until FY 2006, and some have only been implemented in a targeted set of national EPA systems. Other EPA systems will be allowed to accommodate such changes as part of their normal re-engineering schedule, and States will be allowed to decide whether or not to adopt these standards. Data standards are a fundamental component for implementing EPA's National Environmental Information Exchange Network and other e-government initiatives[45]. If EPA's exchange network infrastructure is to work effectively, timely implementation should be required for all applicable systems. Moreover, the use of data standards should be a required condition for receiving money under the Exchange Network Grant Program.

Data reliability is another major aspect of data management that needs further attention. Prior audits indicate systems used by EPA's Enforcement, Superfund, and Water programs have inconsistent, incomplete, and obsolete data.[46] Despite acknowledged problems regarding the quality of the drinking water data, EPA used the flawed and incomplete data to draw and report conclusions about its drinking water goal. As such, year after year, EPA incorrectly reported meeting its drinking water goal under GPRA.[47] Another OIG evaluation found that EPA's performance measurement, reporting, and program tracking systems did not effectively monitor and report refinery program progress within the Agency, to the public, and to Congress. We found that EPA's Integrated Compliance Information System captured and reported projected emission reductions rather than actual emission reductions related to the program, meaning that GPRA and other reports did not demonstrate the actual impact of the refinery program.[48] Likewise, audits of other major Agency systems have disclosed significant error rates in crucial data fields used to track environmental progress on GPRA goals and measures.[49] All EPA organizations that collect, evaluate or use environmental data must develop and implement

Quality Management Plans and the Office of Environmental Information recently completed a major effort to establish and revise Quality Management Plans throughout the Agency.[50]

The Agency also responded to data quality concerns by instituting an on-line Integrated Error Correction Process in 2000, which enables partners and stakeholders to alert EPA about potential data errors in eight data systems[51]. In addition, in FY 2002, the Agency issued a Draft Data and Information Quality Strategic Plan to prioritize actions for improving the quality of currently collected data[52]. The EPA's first draft *Report on the Environment* Spring 2003 acknowledged that data gaps in some program areas limit EPA's ability to create a reliable, national picture or assess progress towards those environmental goals.[53] Drawing from these documents, as well as input from the public, the Agency plans to develop (1) a planning process for the identification of key data gaps and (2) an Indicators Long-Term Strategic Plan for filling key information gaps.[54]

Data quality concerns extend to questionable analyses by laboratories. Such concerns raise skepticism regarding the effectiveness of environmental decisions, and lead to additional costs and unnecessary delays when EPA has to identify and assess the impact of fraudulent data and undertake additional sampling. In a June 1999 memorandum to the Acting Deputy Administrator, we suggested actions the Agency could take to better identify data of questionable quality[55]. Nonetheless, the number of ongoing lab fraud investigations increased by more than 150% between FY 2001 and 2003 due to complaints received. The method of fraud employed by all but two of the involved laboratories dealt with some form of altered or fraudulent test results. This type of improper laboratory practice is especially alarming considering that Agency, State or other Federal government decisions may have been made based on data of unknown scientific quality.

Our reviews and investigations continue to show a disturbing trend in the number of environmental laboratories that are providing misleading and fraudulent data to the States for monitoring the nation's public water supplies. Although our investigations of data quality and data integrity include a cross section of EPA programs, the majority of investigations involve the Office of Water (drinking water and National Pollutant Discharge Elimination System) and the Office of Solid Waste & Emergency Response (Superfund). Several current lab fraud investigations involve fraudulent manipulation of data used to evaluate the compliance of public water supplies with Federal drinking water standards. Another case involves fraudulent Superfund data supplied to the Agency by a laboratory for almost a ten-year period. These cases indicate that despite past efforts to ensure improved data quality, manipulated data continues to be generated and supplied to EPA.

To address laboratory fraud, EPA recently issued a new policy that will require laboratories to document adherence to a Quality System though periodic independent assessments, participation in inter-laboratory comparisons, and by seeking accreditation, where such programs are available, for components of laboratory operations. As a first step in implementing the new directive, by the end of FY 2004, each laboratory must submit its preferred implementation approach and timetable.[56]

Moreover, a recent EPA Task Force Study noted that the quality and comparability of data used for regional decisions is questionable when field sampling activities and laboratory methods do not incorporate the latest scientific advances.[57] Regions depend on EPA's Office of Research and Development (ORD) and Program Offices to provide and incorporate state-of-the-art science into program guidance. As such, the Study's report makes numerous recommendations to improve data reliability, access, and compatibility issues, including that ORD should collaborate with program and regional offices to (1) sponsor an exposition highlighting recent scientific advances, including data collection and analytical methodology, and (2) identify topics for future seminars and workshops.

The EPA's ability to enforce environmental laws, evaluate the impact of its programs in terms of environmental improvement, and accurately inform the public about the status of the environment may continue to be limited by gaps and inconsistencies in the quality of its data. The EPA needs to continue its efforts to identify what data is necessary to manage its programs, and work with its partners to ensure that such information is captured and reported in a timely, accurate, and consistent manner.

EPA's Use of Assistance Agreements to Accomplish Its Mission

Assistance agreements are a primary means EPA uses to carry out its mission of protecting human health and the environment. More than half of EPA's FY 2003 budget, approximately $4.4 billion, was awarded to organizations through assistance agreements. It is imperative that the Agency uses good management practices in awarding and overseeing these agreements to ensure they cost effectively contribute to attaining environmental goals.

The Office of Inspector General's grants management work has focused on crosscutting national issues and has included grants made to State, local and tribal governments, and not-for-profit organizations. We have reviewed assistance agreement administration in EPA's major program areas, and found that systemic weaknesses continue in how EPA manages assistance agreements. Recent OIG audits found:

- While EPA had developed corrective actions to improve oversight controls over assistance agreements, oversight continued to be a weakness. Actions such as (1) development of post-award monitoring policies, (2) establishment of training requirements for project officers, and (3) performance of management effectiveness reviews, have not resulted in eliminating weaknesses in grants oversight.[58]

- Project officers did not perform all necessary steps when conducting pre-award reviews of assistance agreement applications. For example, in 19 percent of the assistance agreements reviewed, the project officer did not determine the relevance of the proposed workplans to EPA program objectives. Project officers also did not document cost reviews to determine the reasonableness of the proposed costs in 79 percent of the assistance agreements where it was required.[59]

The EPA policies and guidance identify the reviews EPA staff is to perform prior to and after assistance agreements are awarded. However, EPA staff did not always follow the policies and were not held accountable when they did not do so.

As a result of OIG and General Accounting Office (GAO) audits, as well as its own reviews, EPA has revised several of its policies on management of assistance agreements as well as the training it provides project officers. These changes have resulted in increased requirements for competing grants, monitoring of grant recipients, and review of program and regional office management of grants.

In one OIG review involving a not-for-profit grantee, we questioned $4.7 million because the work was performed by an ineligible lobbying organization.[60] The EPA awarded the cooperative agreements to an associated organization that did not have any employees, space, or overhead expenses. In addition, the ineligible organization's financial management practices did not comply with Federal regulations. In another review, we questioned $1.1 million claimed by the recipient because it did not separately identify and accumulate all the costs associated with its membership activities and lobbying efforts.[61] The recipient also did not competitively obtain contract services. In one instance the recipient received seven proposals, but awarded the contract to the current vendor, even though the vendor had not submitted a proposal.

The management of assistance agreements is an Agency-level weakness under the Federal Managers' Financial Integrity Act. If EPA is to improve its management of assistance agreements, it needs to allocate adequate resources to the function and hold management and staff accountable for adhering to Agency policies that promote good management of assistance agreements. In April 2003, EPA issued a Grants Management plan that includes actions to address recommendations the OIG has made in recent audit reports. The challenge for EPA management and staff will be implementing the corrective actions and in continually assessing operations to determine if additional improvements in the management of assistance agreements are warranted.

Progress Made, But Challenges Remain in Addressing Air Toxics Program Goals

Toxic air pollution is one of the more significant health and environmental problems in the U.S., causing cancer, neurological, immunological, and other serious health problems.[62] The EPA's goal is to reduce air toxics emissions and the associated risks to public health and the environment from air toxics substantially by 2010.[63] The Agency has increased its efforts to address air toxics goals in recent years as evidenced by a nearly 41 percent increase in funding from $90.7 million in fiscal year 1999 to $127.7 million for fiscal year 2004.[64]

Further, in February 2004 EPA achieved its Phase 1 goal of issuing technology-based standards, also known as Maximum Achievable Control Technology (MACT) standards, for 174 categories of major stationary sources.[65] Since 1990 EPA has been implementing a two-phased program to reduce emissions of 188 air toxics from these 174 categories. Phase 1 is a technology-based approach to reducing air toxics, while Phase 2 assesses the level of health risk remaining after the Phase 1 controls are in place. No Phase 2 standards have been issued to date.[66]

Implementation of the Phase 2 standards may present greater challenges than Phase 1 because Phase 2 requires EPA to determine the air toxics risks to human health after the MACT standards have been implemented and, if MACT standards are not sufficiently protective of human health, EPA must propose additional standards.[67] However, significant data gaps and uncertainties exist with respect to estimating human exposure to air toxics and the risks associated with differing levels of air toxic exposures for the 188 air toxics.[68] Also, the Agency has focused largely on 33 of the worst air toxics prevalent in urban areas.[69] Although progress is being made, significant data gaps in understanding these 33 highest priority air toxics still exist,[70] and EPA's health and ecological effects information, exposure data, emissions data, source characterization data, and ambient data on the remaining 155 air toxics is even more limited.[71]

In addition to major stationary sources, mobile sources and areas sources are significant sources of air toxics emissions.[72] Mobile sources are particularly significant in urban areas. The EPA has increased its funding for mobile source air toxics activities by 35 percent since 1999, and has major rulemaking efforts underway to address 21 air toxics from mobile sources both on and off roads.[73] Also, mobile source rules designed to address diesel emissions and to reduce levels of particulate matter and ozone are expected to reduce air toxic emissions significantly; however, mobile source emissions of air toxics remain a significant health concern, particularly their potential to create local hotspots of excess air toxic exposure.[74] Area sources (smaller stationary sources that do not quality as major sources) produce emissions that tend to cluster in highly populated areas.[75] Area sources are currently estimated to represent over 30 percent of total air toxics emissions.[76] Although 70 area source category standards were required to be completed by 2001, EPA has issued standards for only 14 source categories. The EPA is negotiating promulgation dates for the remaining 56 source categories as part of settlement discussions.[77]

Measuring air toxics progress presents significant challenges because of the uncertainties associated with characterizing air toxics emissions, ambient concentrations, human exposure, and health effects. There is limited data on the synergistic impacts of exposures to multiple air toxics, such as the exposures that routinely occur in urban areas – the types of exposures that some scientists believe are the leading health impact from air toxics.[78] Work on integrating research findings on the toxicity of air toxics mixtures and cumulative risk is not scheduled for completion until fiscal year 2009.[79] Unlike the criteria pollutant program, a comprehensive network of ambient (outdoor) air toxics monitors does not yet exist.[80] Consequently, EPA relies on emissions data for gauging its progress in reducing health risks from airborne toxics and is likely to do so for years to come.[81] However, there are concerns with the accuracy of this data, and EPA faces considerable challenges in improving this measure.[82] The Agency will need help from State and local agencies to improve air toxics emissions data,[83] but these agencies have not been required to report air toxics emissions data nor have they been required to verify it.[84] Improvements in methods for calculating air toxics emissions are needed if the Agency is to accurately gauge the extent to which emission reductions have reduced the public's health risk as called for under GPRA.[85] We will continue to monitor the progress EPA makes in addressing these important issues.[86]

Tier II

Human Capital Management

The EPA remains committed to ensuring its workforce is high performing, results-oriented, and aligned with its strategic goals and objectives. In accordance with the President's Management Agenda (PMA) initiative on Human Capital Management[87], EPA is endeavoring to link human capital strategies to its mission, determine necessary core competencies, and use strategic workforce planning to attract, develop, and retain a high-performing workforce. The EPA's December 2003 human capital strategic plan[88] is designed to ensure a systematic process for identifying the human capital requirements to meet strategic and organizational goals. Moreover, EPA's latest Strategic Plan[89] emphasizes the importance of human capital planning within each of the Agency's five performance goals and includes a cross-goal strategy that links the Strategic Plan to the PMA and to the Agency's new human capital strategy.

While EPA continues to make progress in its human capital efforts and has indicated a strong commitment to reaching its PMA goals,[90] management acknowledges several requisite action areas. Specifically, EPA recognizes the need to: (1) hold senior leaders accountable for successful implementation of human capital strategies, (2) develop and carry out good succession plans, (3) effectively communicate planned strategies across the Agency, and (4) establish a comprehensive accountability plan and consistently implement it throughout the Agency.

The EPA will remain challenged in the near-term, and potentially long-term, to implement human capital activities on an office-by-office basis to achieve Agency-wide success. While EPA has not yet comprehensively assessed its workforce, it has developed and begun implementing its Strategic Workforce Planning System that should, among other things, help management identify the skills and the number and type of positions required, inventory the skills of the current workforce, examine attrition rates, forecast the number of new hires, identify gaps in an office's human capital resources and workload demands, and strategically plan to address any gaps. This work will be key to EPA's success because it will enable offices to plan for and carry out necessary human capital initiatives. The following example illustrates why this work is so important.

A recent OIG report[91] highlights that an inaccurate assessment of human capital prevented the Agency from effectively managing the national petroleum refinery compliance program. The ultimate success of the refinery compliance program depends on the Agency's effective management of consent decrees. However, we found that some actions designed to reduce company emissions using negotiated and enforceable consent decrees have been delayed due to implementation problems stemming from insufficient human capital workforce planning. As Agency officials did not establish accurate, detailed resource plans to meet current workloads, serious backlogs in the review of consent decrees developed and persisted in part because the Agency did not reallocate its human capital resources as demands changed.

In addition, an Agency-wide task force study[92] reported human resource management as a challenge for optimizing the use of science in regional decisions. The report emphasized that

human resource management needs to be focused on hiring, developing, retaining, and supporting competent scientists/engineers. Additionally, workforce planning is important to strategically obtain needed scientific expertise and provide the appropriate workforce skill mix reflecting important scientific and technological advances. In particular, the report identifies four human resource management obstacles and makes numerous recommendations, including that "Regions should work closely with Office of Administration and Resource Management (OARM) so that the Regions' Human Capital Planning efforts result in workforce development strategies reflecting this need at a national level . . .."

Lastly, the OIG recently conducted an Agency-wide survey designed to assess EPA's level of readiness to implement strategic human capital management activities. Survey results[93] support that senior leaders are committed to strategic human capital management activities, and most senior leaders cite they are held accountable for implementing such activities. However, responses indicate that headquarters and regional offices are at different stages of implementing human capital activities (e.g., establishing office-specific human capital strategic plans, communication initiatives, and performance measures; conducting workforce planning and analysis; and implementing human capital accountability systems) because (1) senior leaders have varying opinions on the importance of strategic human capital initiatives, and (2) Agency core management processes do not place adequate attention on this area. We also found that the Agency's human capital success is not linked to each office's strategic human capital management activities. Our final report will recommend how effective leadership, communication, and accountability factors can assist in driving EPA's human capital change initiatives.

In summary, while progress has been made, human capital management continues to be a key challenge. We will continue to monitor the Agency's progress in developing a system that ensures a well-trained and motivated workforce with the right mix of skills and experience. Implementation of the Human Capital Strategic Plan is an Agency-level weakness under the Federal Managers' Financial Integrity Act.

EPA's Information Systems Security

The EPA's information systems collect, process, store, and disseminate vast amounts of information used to help make sound regulatory and program decisions and inform the public about the status of the environment. To protect the integrity of this information, the Agency must prevent intrusion and abuse of its automated systems.

Under the leadership of the Office of Environmental Information (OEI), EPA's goal is to make information on its computer systems available, while protecting the confidentiality and integrity of the information.[94] As indicated in its FY 2003 annual report to the Office of Management and Budget (OMB), EPA continues to enhance its Information Security Program through continuing risk assessments of its major systems, monitoring networked servers, using security self-assessments that conform to government-recognized guidelines, conducting internal and external network penetration tests, and monitoring the Agency's firewall and intrusion detection system.[95] In addition, OEI furthered its security response capabilities by drafting an incident response handbook to help Agency Information Security Officers understand and better

respond to potential incidents.[96] These positive actions led EPA to downgrade this management challenge to an Agency-wide weakness under the Federal Managers Financial Integrity Act, and to subsequently refocus corrective actions on assuring the implementation of its information security program.[97]

The dynamic nature of security, however, requires continued emphasis and vigilance, and we believe the following additional actions are needed to protect EPA's information and systems.

- Establish a systematic monitoring and evaluation program that allows management to place reliance on collected data and make informed investment decisions and judgments regarding the effectiveness of EPA's computer security program. In particular, OEI needs to increase its oversight activities that (1) independently verify and validate the implementation of the security program, and (2) evaluate the performance of major agency components.[98] A recent OIG report disclosed that OEI relies on, and subsequently reports to OMB, a significant percentage of inaccurate and unsupportable information, which it has collected through annual system security self-assessments.[99] Prior audit work determined that OEI needs to do more to ensure EPA program officials assess the risks to operations and assets under their control and determine the level of security appropriate to protect such assets and operations.[100] Without regular, effective oversight processes, EPA will continue to place unsubstantiated trust in the many components involved in implementing, practicing, and documenting security requirements.[101]

- Implement security and configuration improvements to further ensure that EPA's information resources are adequately secured. In particular, OEI needs to: (1) establish a standard configuration requirement for adequately securing workstations used to remotely administer the Agency's network firewalls, (2) modify the software change and patch management processes to ensure new "patches" do not adversely affect previously applied fixes, and (3) modify the network vulnerability assessment methodology to include scanning of all firewall components.[102]

- Improve security practices within EPA's network to prevent the misuse of government resources and detect potential attacks by network users. Computer security statistics support that authorized users of the network cause a high percentage of misuse/abuse incidents. Such incidents include excessive or inappropriate web surfing, illegal downloading of software, and operating a private business using government resources. Recent OIG investigations include more serious allegations of network misuse, and have resulted in contract employee terminations, criminal convictions, and employee disciplinary actions.[103]

- Develop and ensure implementation of a training program to provide information security training to EPA employees with significant information security responsibilities.[104] This includes OEI's plans to implement a system to aid in the tracking of security training for employees with significant security responsibilities.[105]

- Establish a process to ensure that the Agency's information security plan is practiced

throughout the life cycle of IT systems. Specifically, EPA needs to update security plan policies and guidance to align them with current federal standards and set milestone dates when plans will be in compliance.[106]

- Establish a policy and management framework to support development of up-to-date contingency plans for Agency information systems and test critical components under circumstances relative to actual deployment.[107]

- Establish a process to complete timely background investigations on contractor personnel who, by the nature of their work, have access to sensitive and/or confidential files. At this time, EPA has contract employees with such access who have not received any clearance. Examples include a contract employee with access to Confidential Business Information who was arrested on a felony warrant. Until the Agency addresses this issue, it will be vulnerable to information leaks, theft, tampering, and destruction.

- Modify OEI's Plan of Actions and Milestones database to prioritize targeted completion dates for recognized security weaknesses.

Based on the threat of cyber attacks, Federal agencies continue to devote significant attention to security of information systems. While EPA has made certain improvements, this area remains a top management challenge.

Management of Biosolids

Approximately six million tons of sewage sludge ("biosolids") is produced annually by sewage treatment plants in the United States.[108] With inadequate treatment these biosolids may contain a wide variety of chemicals and pathogens, the remains of the sewage treatment process[109]. Although a number of biosolids activities are underway or planned (as outlined below), at this time the OIG believes that (1) EPA does not know whether current regulations, when adhered to, are protective of public health[110], (2) EPA does not have an overall understanding of the magnitude and quality of biosolids production and disposal practices[111], (3) EPA does not know if the enforcement and compliance resources committed to managing biosolids are adequate to ensure that the regulations are adhered to.[112]

The Agency has taken the position that biosolids management is a low-risk activity.[113] As a result, EPA did not meet its commitment to comprehensively assess the extent of the risk.[114] EPA issued Part 503 of Title 40 of the Code of Federal Regulations ("The Sludge Rule") to govern the use and disposal of biosolids in February 1993 under court order. When it issued the rule, EPA committed to conducting a comprehensive research program to assess the risks associated with land application of biosolids, yet has only begun to do so now.

In June 2002 the National Academy of Sciences (NAS) recommended additional research.[115] The EPA published a final notice in the December 31, 2003 Federal Register providing its final response to the NAS report and detailing the final action plan for biosolids activities for the near and long-term time frames.[116] The final action plan consists of a list of fourteen projects scheduled to begin or be completed in the next two to three years, and

depending on several factors, a possibility of other projects that would begin after 2005.[117] The near-term projects address the major categories of: a regulatory review of Part 503; development of analytical methods, particularly relating to microbial pollutants; development and assessment of scientific data; compliance assistance and enforcement activities, including updated training and guidance, and a pilot expedited settlement offer program[118]; and increased communication of information to stakeholders.[119]

The EPA is coordinating the biosolids project work across EPA with several Offices having the lead responsibility for different activities in the action plan. While target dates for the projects are scheduled through FY 2007, as information becomes available, the Agency plans to incorporate it in their ongoing regulatory review process every 2-3 years.[120] The EPA has also initiated contact with the Centers for Disease Control and Prevention (CDC)[121], which has committed to participating with EPA in an "Incident Tracking Workshop."

The EPA uses the Permit Compliance System (PCS) to manage water quality activities of point source dischargers such as sewage treatment plants, but PCS is acknowledged by the Office of Water (OW) as inadequate for managing biosolids.[122] The EPA has been unable to answer basic questions such as how much biosolids are land-applied.[123] As a result of this data gap, OW developed an independent system, the Biosolids Data Management System (BDMS), to track compliance with biosolids regulations.[124] According to OW, "the ultimate usefulness of the BDMS on a national basis is likely dependent upon its adoption into PCS."[125] At this time, EPA is still in the process of revising and updating PCS.[126]

The EPA has diverted compliance and enforcement resources away from this program. The safety of biosolids land application depends on the adherence to highly technical treatment standards by land applicators across the country. In a 2000 report we found inadequacies in EPA's management and enforcement of the biosolids program.[127] In a status report on the biosolids program published two years later, we reported a further 44% reduction in full-time equivalent positions (from 18 to 10).[128] This is a particular concern because EPA runs the biosolids program in 45 States[129]. Adequate oversight of this program is critical for ensuring regulatory compliance. To date, EPA has not committed the resources needed to fulfill its oversight responsibilities.

Although EPA is directing renewed attention to this area, several issues remain unsettled. The uncertainties and management gaps discussed above have contributed to a series of court cases across the nation contesting the land application of sewage sludge. We will continue to monitor EPA's progress dealing with these issues and completing the action plan.

Backlog of National Pollutant Discharge Elimination System (NPDES) Permits

The Clean Water Act specifies that NPDES permits expire in five years.[130] Permittees wishing to continue discharging beyond that term must apply prior to the expiration date of their permit.[131] If the permitting authority receives a renewal application but does not reissue the permit prior to expiration, the permit may be "administratively continued."[132] Although all existing permit conditions remain in effect, administratively continued, or "backlogged" permits are a major concern because conditions may have subsequently changed since the original permit

was issued, and new restrictions on permits may now apply. However, "backlogged" permits would not contain these new terms and conditions, thereby delaying potential environmental improvements to water.[133]

The Agency has recognized the backlog of NPDES permits as a nationwide problem and developed a corrective action plan.[134] The plan includes (1) using new technology to streamline the permit development process, (2) providing environmental assessments and permit assistance to the states, and (3) communicating the importance of this issue to the states and EPA regional offices and receiving their firm commitments to reduce the backlog.[135] In FY 2003, EPA developed and piloted the Permitting for Environmental Results initiative to address the permit backlog and focus resources on attaining the most significant environmental results." Through this initiative, EPA believes that states and EPA will be able to have an environmental focus in permit issuance as well as develop efficiencies to meet permitting goals despite resource constraints.[136]

The NPDES permit backlog has been tracked by the Agency as a FMFIA material weakness since 1998 until its reduction in status to an Agency level weakness at the end of 2002.[137] The OIG reported the backlog as a management challenge starting in 1998 and still considers it as a Tier II Management Challenge. The EPA's goal has been to reduce the backlog of NPDES permits to 10 percent for major and minor permits by the end of calendar year 2004.[138] Last year, the agency said that it's on track for correction by fiscal year 2005. In March 2003, EPA reported that the backlog for majors was 17% and for minors was 19.2%, and as of December 2003 the backlog reports indicate further reductions; the backlog for major permits was reported to be 15.8%, and for minors was 18.6%.[139] Although the Agency no longer expects to meet its 2004 goal, it now says that it's on track for correction by FY 2005.[140]

In 2003, EPA began developing the "Permitting for Environmental Results Strategy" to "...address concern for the workload in permit issuance and the health of state NPDES programs."[141] Beginning in FY 2004, EPA will make comprehensive assessments of NPDES program integrity and track the implementation of follow-up actions." According to EPA, the Strategy "focuses limited resources on the most critical environmental problems by targeting three key areas: developing and strengthening systems to ensure the integrity of the program; focusing headquarters, Regions and States on environmental results in the permitting program; and fostering efficiency in permitting operations."[142]

We will continue monitoring EPA's progress in addressing this important issue. The OIG is completing the fieldwork phase of an evaluation directed toward assessing (1) the extent of the environmental impact of the NPDES permit backlog, (2) how well the NPDES backlog measures reflect environmental impacts of delayed permit reissuance or issuance and (3) how successful EPA and states have been at managing the backlog.

Notes:

[1] Reports Consolidation Act of 2000. Public Law 106-531 (January 24, 2004).
[2] Federal Managers Financial Integrity Act of 1982. Public Law 97-255 (September 8, 1982).
[3] U.S. EPA, Office of Water, *National Pollutant Discharge Elimination System (NPDES), Backlog Reduction.* Available at http://cfpub.epa.gov/npdes/permitissuance/backlog.cfm
[4] U.S. EPA FY 2005 Annual Performance Plan and Congessional Justification, page II-57
[5] U.S. EPA, Grants Information and Control System (GICS) database.
[6] Office of Management and Budget, The Executive Office of the President, Federal Management, The *President's Management Agenda*. Available at http://www.whitehouse.gov/omb/budintegration/pma_index.html
[7] EPA selected as finalist for the 2002 Presidential Quality Award in Area of Budget and Performance Integration, news release. Available at http://www.whitehouse.gov/news/releases/2002/11/20021125-2.html .
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[10] The White House Office of the Press Secretary, Homeland Security Presidential Directives, (December 17, 2003), available at http://www.whitehouse.gov/news/releases/2003/12/20031217-5.html
[11] U.S. EPA, Selected Information Management (IM) and Information Technology (IT) Programs and IT Policies. Available at http://www.epa.gov/irmpoli8/ .
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[15] FY 2005 Congressional Justification, page I-18; "The Clean Air Act Amendments of 1990 - Summary Materials," Office Of Air and Radiation (OAR), U.S. Environmental Protection Agency, November 15, 1990; and *EPA's Draft Report on the Environment, Technical Document*, EPA-260-R-03-050, page I-17,18, June 2003. .
[16] U.S. EPA, Office of Water, *National Pollutant Discharge Elimination System (NPDES), Backlog Reduction*. Available at http://cfpub.epa.gov/npdes/permitissuance/backlog.cfm.
[17] Inspector General Act of 1978, as amended, Public Law 95-542, October 12, 1978.
[18] OIG Memorandum of September 6, 2002 to EPA Administrator, "EPA's Key Management Challenges".
[19] OIG Memorandum of May 22, 2003 to EPA Administrator, "EPA's Key Management Challenges".
[20] OIG Memorandum of April 21, 2004 to EPA Administrator, "EPA's Key Management Challenges"
21. OIG Report No. 2003-M-00016, *EPA Needs a Better Strategy to Measure Changes in the Security of the Nation's Water Infrastructure*, dated September 11, 2003. http://www.epa.gov/oig/reports/2003/HomelandSecurityReport2003M00016.pdf
22. Assignment No. 2003-001034, *Effectiveness of the Office of Children's Health Protection Cannot Be Determined*, **Draft Report Pending**

23. OIG Report No. 2004-P-00007, *EPA Needs to Consistently Implement the Intent of the Executive Order on Environmental Justice*, dated March 1, 2004. http://www.epa.gov/oig/reports/2004/20040301-2004-P-00007.pdf
24. OMB Performance and Management Assessments for Fiscal Year 2004 (EPA Results), page 247.

25. OIG Report No. 2003-P-00010, *Implementation, Information, and Statutory Obstacles Impede Achievement of Environmental Results from EPA's Hardrock Mining Framework*, dated August 7, 2003, Executive Summary
26. OIG Report No. 2003-P-00013, *Pollution Prevention: Effectiveness of EPA's Efforts to Encourage Purchase of Recycled Goods Has Not Been Demonstrated*, dated September 22, 2003, Executive Summary.
27. Special Report No. 2004-S-00001, *Congressional Request on EPA Enforcement Resources and Accomplishments*, dated October 10, 2003. http://www.epa.gov/oig/reports/2003/20031010-2004-S-00001.pdf
28. OIG Report # 2004-1-00021, dated November 21, 2003, *Audit of EPA's Fiscal 2003 and 2002 Financial Statements, Attachment 2, Compliance with Laws and Regulations*, Condition # 9 - EPA Continues to Make Efforts to Improve Its Cost Accounting Processes.
29. Ibid.
30. EPA Strategic Information Plan: A Framework for the Future, July 29, 2002, page 11.

31. US EPA *Strategic Plan for Homeland Security*, October 2002, pg i, paragraph 2 and 4 http://www.epa.gov/epahome/downloads/epa_homeland_security_strategic_plan.pdf
12. See, (1) Resources for the Future, 2001, *Superfund's Future What Will it Cost?* Katherine N. Probst and David M. Konisky with Robert Hersh, Michael B. Batz, and Katherine D. Walker; (2) EPA, Office of Inspector General, *EPA Response to Senate Environment and Public Works Committee on FY 2002 Funding Needs for Non-Federal Superfund Sites*, October 25, 2002; (3) United States General Accounting Office, *Superfund Program: Current Status and Future Fiscal Challenges*, GAO-03-850, July 2003; (4) EPA Office of the Inspector General, *Implementation, Information, and Statutory Obstacles Impede Achievement of Environmental Results from EPA's National Hardrock Mining Framework*, August 2003; (5) EPA Office of Inspector General, *Congressional Request on FY 2003 Funding Needs for Non-Federal Superfund Sites*, January 7,2004; and (6) EPA Office of Inspector General, *Nationwide Identification of Hardrock Mining Sites*, March 31, 2004.
33. See, EPA, "Superfund: 20 Years of Protecting Human Health and the Environment", December 2000.
[34]. *Immediate Action Needed to Address Weaknesses in EPA Efforts to Identify Hazardous Waste Sites in Indian Country*, January 30, 2004, Report No. 2004-P-00003 http://www.epa.gov/oig/reports/2004/20040130-2004-p-00003.pdf
35. OEI FY 2003 Federal Managers' Financial Integrity Act Annual Assurance Letter, Summer of 2003, Attachment 6, *Data Management Practices*.
36. EPA Strategic Information Plan: A Framework for the Future, July 29, 2002, page 8.
37. Office of Water Data Integration Efforts, Report No. E1NWG6-15-0001-8100177, June 22, 1998, page 5. http://www.epa.gov/oig/reports/1998/8100177.pdf
38. EPA Enterprise Architecture Status Report 2003, dated September 8, 2003, page I-1.
39. Ibid.
40. EPA Enterprise Architecture Status Report 2003, dated September 8, 2003, Section C, and EPA Enterprise Architecture and Sequencing Plan Presentation by Chief Architect to Quality Information Council, dated August 27, 2003, page 3.
41. EPA Enterprise Architecture and Sequencing Plan Presentation by Chief Architect to Quality Information Council, dated August 27, 2003, page 2.
42. Enterprise Architecture Status Report 2003, dated September 8, 2003, page SR-10 & 11.
43. Office of Water Data Integration Efforts, Report No. E1NWG6-15-0001-8100177, June 22, 1998, page 5 http://www.epa.gov/oig/reports/1998/8100177.pdf
44. EPA web site: www.epa.gov/edr - Data Standards page
45. Ibid.
46. OIG Report No. 2004-P-00004, *EPA Should Take Steps to Improve Industrial Reporting to the Toxics Release Inventory System*, dated February 2004, http://www.epa.gov/oig/reports/2004/20040202-2004-P-00004.pdf
47. OIG Report No. 2004-P-0008 ,*EPA Claims to Meet Drinking Water Goals Despite Persistent Data Quality Shortcomings*, dated March 5, 2004. http://www.epa.gov/oig/reports/2004/20040305-2004-P-0008.pdf
48. OIG Report No. 2003-001289, *Opportunities Exist to Improve and Replicate EPA's National Petroleum Refinery Compliance Program*, Executive Summary, Assignment # 2003-001289.
49. Executive Summaries: OIG Report No. 2002-P-00004, *Quality of Data in Enforcement's DOCKET System*, dated January 18, 2002, and OIG Report No. 2002-P-00016, *Comprehensive Environmental Response, Compensation, and Liability Information System Data Quality*, dated September 30, 2002.
50. OEI FY 2003 Program and Project Highlights, dated October 2003, page 6.
51. EPA Strategic Information Plan: A Framework for the Future, July 29, 2002, page 8, and OEI NewsLetter, dated April 2001, page 3.
52. OIG Comments to Data & Information Quality Strategic Plan, May 2001 and EPA Pre-Brief for the Quality and Information Council, May 24, 2001.
53. Presentation regarding *State of the Environment*, by Denise Shaw (EPA/ORD), at OIG National Conference, December 2003.
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